allows the kits to "consist essentially of" much fewer reagents than are employed by the Morris reference. Also Claim 10 and 19 recite that the lyzing agent and the compaction precipitating agent can be together, further simplifying the kits of the invention.

In The Claims

Please amend elected claims 10 and 19 (Group IV). amend Claims 20-36, cancel Claim 27 and add new Claim 38 as follows. All claims are set forth below. (Support is indicated in brackets referring to paragraphs under "Modifications" in the original specification, which support the respective claim.):

10. A composition to be added to a cell mass containing nucleic acid, for the recovery of RNA and/or DNA without addition of protease, ribonuclease, carbohydrases or other enzymes, said composition comprising a mixture of combined reagents, one of which comprises lysing means for releasing DNA from cells, [and lyses] and one of which comprises precipitating means having small, cationic molecules which bind in either the major or minor grooves of a double-stranded RNA or DNA molecule reducing the volume occupied by the nucleic acid which precipitates DNA comprising less than about 0.1 Units endotoxin per microgram plasmid DNA (EU/μg or IE/μg)

19. A biotech kit comprising reagent for recovering DNA and/or RNA from lysates or synthetic mixtures containing PCR products, oligonucleotides, and other nucleic acids resulting from synthetic syntheses, without addition of protease, ribonuclease, carbohydrases or other enzymes, by adding to a culture both lysing means which releases nucleic acids and compaction agent which selectively precipitates DNA or RNA and other reagents and

38. A kit according to Claim 21 comprising parallel mini-prep apparatus for simultaneously treating a plurality of cell masses. [W]

22 [MM]. A purification kit for total RNA according to Claim 21 [comprised] consisting essentially of a lysis solution; a 1st compaction precipitation solution (which may be optionally combine with the lysis solution); a 2nd compaction precipitation solution; a stripping solution; and optionally a final resuspension solution. [based on Example 26.]

23 [NN]. A purification kit for chromosomal or genomic DNA according to Claim 21 [KK above] consisting essentially of [comprised] of a lysis solution or solutions, a resuspension solution, a compaction agent-based precipitation solution, a stripping solution, and optionally a final resuspension solution. [based on Example 27.]

24 [OO]. A purification kit for large RNA fragments according to Claim 21 [KK above] consisting essentially of [comprised] of a lysis solution; a 1st compaction precipitation solution (which may optionally be combined with the lysis solution); a 2nd compaction precipitation solution; a stripping solution; and optionally a final resuspension solution. [based on Example 26.]

25 [PP]. A purification kit for low molecular weight RNA fragments according to Claim 21 [KK above] consisting essentially of [comprised] of a lysis solution; a 1st compaction precipitation solution (which may be optionally combine with the lysis solution); a 2nd compaction precipitation solution; a 3rd compaction precipitation solution; a stripping solution; and optionally a final resuspension solution. [based on Example 26.]

26 [QQ]. A large-scale plasmid DNA purification kit according to Claim 21 [KK above] consisting essentially of [comprised] of the lysis solutions, a

resuspension solution, a compaction agent-based precipitation solution, a stripping solution and optionally a final resuspension solution. [based on Example 1].

Cancel Claim 27 in its entirety without prejudice to reduce the number of claims:

[27 [RR]. A large-scale filtration-based plasmid DNA purification kit according to Claim 21 consisting essentially of [comprised] of lysis solutions, a resuspension solution, a compaction agent-based precipitation solution, a stripping solution and optionally a final resuspension solution. [Based on Example 23.]]

28. [SS]. A biotech kit according to Claim 21 additionally comprising [the use of] filtration means to enhance the speed and usability of the preparations using the kit.

29. [C].A kit according to Claim 19 designed to produce as product a [A] composition of matter comprising DNA, substantially free of added nucleases, and containing less than about 3% by weight RNA.

30. A kit according to Claim 22 designed to produce as product a composition of matter comprising RNA substantially free of added nucleases, and containing less than about 3% by weight DNA.

31. A kit according to Claim 19 wherein the [comprising a] compaction agent is selected from the group consisting of: basic polypeptides, polyamines, trivalent and tetravalent metal ions.

32. A kit according to Claim 22 [comprising a] wherein the compaction agent is selected from the group consisting of: basic polypeptides, polyamines, trivalent and tetravalent metal ions.

33. A kit according to Claim 21 [comprising a] wherein the compaction agent is selected from the group consisting of: basic polypeptides, polyamines, trivalent and tetravalent metal ions (i.e. hexammine cobalt, chloropentammine cobalt, chromium (III)), netropsin, distamycin, lexitropans, DAPI (4', 6 diamino 2-phenylindol), berenil, pentamidine, and manganese chloride.

34. A kit according to Claim 21 [comprising a] wherein the compaction agent is selected from the group consisting of: polylysine, protamine, spermidine, spermine, cadaverine hexammine cobalt, chloropentammine cobalt, chromium (III)), netropsin, distamycin, lexitropans, DAPI (4', 6 diamino 2-phenylindol and manganese chloride.

35. A kit according to Claim 21 [comprising] additionally comprising means for purification selected from the group consisting of: use of French cell press, addition of nonionic detergent, lysozyme addition, microfluidizer, freeze-thaw or any other low ionic strength lysis technique to produce nucleic acid free lysates for later protein recovery. [V]

36. A kit according to Claim 21 wherein the resuspension reagent comprises a chelating agent select from the group consisting of:

EGTA, EDTA (ETHYLENEDIAMINETETRAACETIC ACID), Nitrilotriacetic acid, NTA: N(CH2COOH)3,

Hydroxyethylethylenediaminetriacetic acid,
HEDTA:=20 (HOOCH2C)2NCH2CH2N(CH2COOH)(CH2CH2OH)
Diethylenetriaminepentaacetic acid,
DTPA:=20
(HOOCH2C)2NCH2CH2N(NCH2COOH)CH2CH2N(CH2COOH)2
1,2-Diaminopropanetetraacetic acid, 1,2-PDTA
(HOOCH2C)2NCH(CH3)CH2N(CH2COOH)2
1,3-Diaminopropanetetraacetic acid, 1,3-PDTA:
(HOOCH2C)2NCH2CH2CH2N(CH2COOH)2
2,2=B4-Ethylenedioxybis[ethyliminodi(acetic acid)], EGTA:=20
(HOOCH2C)2NCH2CH2OCH2CH2OCH2CH2N(CH2COOH)2
Bis(carboxymethyl)diaza-18-crown-6,
(HOOCH2C)N(CH2CH2OCH2CH2OCH2CH2)2N(CH2COOH)
1,10-bis(2-pyridylmetyl)-1,4,7,10-tetraazadecane, BPTETA:=20
(C6H4N)CH2NHCH2CH2NHCH2CH2NHCH2CH2NHCH2(C6H4N)
and similar chelating agents and combinations of the above components; and the kit additionally comprises [comprising] spinfilter means, means for centrifugation, and/or adsorbent means.

37. A kit according to Claim 21 additionally comprising apparatus means for conducting a further separation step comprising one or more techniques selected from the group consisting of: precipitation and resuspension, filtration and adsorption, for production of more pure product. [Z]

REMARKS

For convenience, Pages 2 and following of the official action are presented below with corresponding responses interspersed between paragraphs: